

Climate Service Company session

CLIMRUN Winter Schools, 6th December 2013.

Trainer: Sandro Calmanti.

The Climate Service Company session consisted of a *role game* divided in two modules.

1. Build a Climate Service company
2. Solve a problem

1. Build a Climate Service Company

During the first session, participants have been split into three groups and asked to design a Climate Service company. Each group was asked to brainstorm on what would be the clients for the company, what facilities/expertise would be required to meet the user needs and finally to provide an example of potential services to be delivered.

Groups were given about 40 minutes time and lively discussions followed. The pictures in Figure 1. document the activities of the working groups and the joint discussion of the results.

Each group had a rapporteur who described (about 10 minutes each) the structure of the envisioned climate service company, with emphasis on three key aspects: clients, facilities, prototype services.

The three CS companies designed by the participants are described below.

Trieste Climate Service Conglomerate Ltd (Trieste CSC)

Team: TESFAYE Yirgalem Negash, CINDRIC Ksenija, TORRALBA FERNANDEZ Veronica, ONWUEMELE Andrew, KWAWU Caroline Rosemyya, YANSEN

Main clients would be identified after an analysis of demand with a defined list of priorities of the sectors to be targeted: 1) Governmental Agencies; 2) Insurance sector (mainly agriculture); 3) Energy; 4) Transport.

Trieste CSC would employ a range of expertise including: meteorologists, climatologists, GIS professionals, marketing and social science experts. Work is conducted in a standard consulting environment.

Examples of services provided by Trieste CSC include:

- Drought projections (seasonal scale)
- Weekly and daily information to the energy and aviation sector
- Modelling and anticipating climate impacts
- Workshops and demonstrations for stakeholders

Inofit Shout & Sons (ISS)

Team: WAIMANN Cristian, BAUDOUIN Jean Philippe, RAMACHANDRAN Prasannavenkatesh, MENSAH Caleb, PATEL Amitkumar Dilipbhai, SALIFU Musah, NKRUHAH Francis, KOMKOUA MBIENDA Armand Joel

Agriculture is the main sector to be addressed. Clients would be national agencies, farmers in rural areas, insurance companies and banks delivering credit service to farmers.

ISS would employ meteorologists, statisticians and economists, pedologists and soil experts, hydrologists, field officers and costumer/communication experts.

Services delivered by ISS would focus on seasonal forecasts and tools for decisions such as crop variety selection and planting opportunities.

James Bond Advicing Ltd (JBA)

Team: QUAGRAINE Kwesi Akumenyi, STEFFEN Sophie, LEMESIOS Ioannis, HERNANDEZ GARCES Anel, YOUNAS Hassan, KUMAR Rajesh, MALL Rajesh Kumar, SHAHID Imran, SRNEC Lidija, ROUSSOS Anargyros, GONZALEZ REVIRIEGO Nube

The main sector of operation in agriculture, with clients ranging from farmers to national agencies.

JBA would have rely on significant research facilities, including testing labs (for soil properties and crops), High Performance Computation facilities and a team of climate/impact modellers.

JBA would provide services to help farmers with irrigation/fertilizer planning and to support decisions in crop selection.

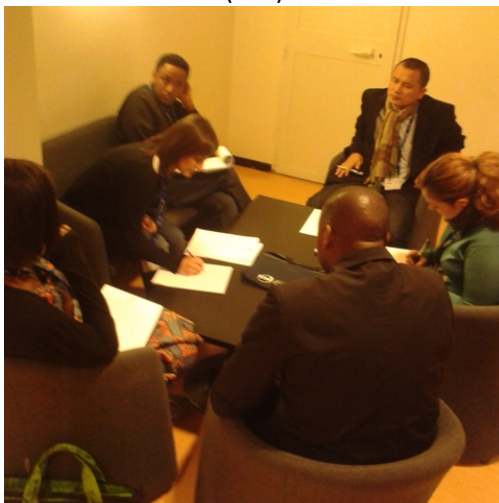
Figure 1. The working groups.



(JBA)



(ISS)



(Trieste CSC)



Discussion

Solve a problem: the Blue Gold adaptation challenge.

In the second part of the Climate Service session the teams were asked to discuss a common challenge called the *Blue Gold Adaptation Game*. The problem is illustrated in Figure 2 and can be summarized as follows. Consider a river basin extending through different climatic areas and across several countries (in the example, the Nile Basin). Water is a key resource to many economic sectors including agriculture, energy(hydropower) and fishery. The area is also subject to two severe external pressures: climate variability and population growth. An international organization (e.g. UN, AU) looks for a consultancy on the design of adaptation plans with the objective of avoiding conflicts among the actors involved (stakeholders in different economic sectors, countries, urban/rural populations etc).

The *solutions* proposed by the three teams are reported below.

Trieste CSC

A win-win relationship model is proposed.

First, it is necessary to model the total volume of water available by country. Then, the water demand should be estimated on the country based, taking into account the different economic sectors. Based on the previous analysis it should be possible to compute excess/deficiency in water availability for each country. An MoU would then be required between the involved countries to include:

- A monitoring system for the available water resources
- Water usage quotas
- A sharing of capacities and trading of commodities (e.g. Ethiopia using more water for hydropower, Egypt more water for agriculture) depending on the respective advantages in different sectors.

ISS

ISS proposes an mechanism which would work on two main pillars

- Identify needs with the help of local authorities
- Plan water use by focusing on the delays in water needs in different sectors.

Tools to be adopted for the planning would be:

- Seasonal forecasts
- Economic modelling, focusing on the relative advantages in each sector
- Hydrological modelling, focusing on sustainable use of underground water

JBA

JBA proposes to focus on efficient use of water, especially in view of future climate change. Therefore an inventory of needs is required. This inventory would allow:

- Modelling of an optimal water distribution among sectors, given the resource availability and the societal relevance of each sector

- Use historical data and seasonal forecasts to modulate water distribution among sectors
- Include population growth as a further variable in the modelling of optimal water distribution

Overall aim should be to preserve reservoir.

Figure 2. Scheme of the BLUE GOLD adaptation game

